

**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF PENNSYLVANIA
AT HARRISBURG**

**LOWER SUSQUEHANNA
RIVERKEEPER ASSOCIATION,**

Plaintiff,

v.

Civil Action No.

**REPUBLIC SERVICES OF
PENNSYLVANIA LLC,**

Defendant.

**COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF
AND CIVIL PENALTIES**

1. This is a citizen suit for declaratory and injunctive relief as well as civil penalties against Defendant Republic Services of Pennsylvania LLC (“Republic”) for violations of the Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq. (hereafter the Clean Water Act (“CWA”)), at its Modern Landfill in York County, Pennsylvania.

2. As detailed below, Plaintiff alleges that Republic has discharged and continues to discharge pollutants into waters of the United States in violation of Sections 301 and 402 of the CWA, 33 U.S.C. §§ 1311, 1342, and the conditions and limitations of its National Pollutant Discharge Elimination System (“NPDES”) Permit No. PA0046680 issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

JURISDICTION AND VENUE

3. This Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question) and 33 U.S.C. § 1365 (CWA citizen’s suit provision).

4. The Lower Susquehanna Riverkeeper Association (“LSRA”) mailed notice of the violations and its intent to file suit in a letter dated November 2, 2022, and addressed to

Republic, the United States Environmental Protection Agency (“EPA”), and the Pennsylvania Department of Environmental Protection (“PADEP”), as required by Section 505(b)(1)(A) of the CWA, 33 U.S.C. § 1365(b)(1)(A).

5. More than sixty days have passed since the notice letter was sent. EPA and PADEP have not commenced or diligently prosecuted a civil or criminal action to redress the violations. Moreover, neither EPA nor PADEP commenced an administrative penalty action under Section 309(g) of the CWA, 33 U.S.C. § 1319(g), or a comparable state law to redress the violations prior to the issuance of the November 2, 2022 notice letter.

6. Venue in this District is proper pursuant to 33 U.S.C. § 1365(c)(1) because the source of the CWA violations is located in this District.

7. Republic is a limited liability company which is registered to do business in Pennsylvania. Republic owns and operates the Modern Landfill that discharges wastewater at its facility at 4400 Mount Pisgah Road in York, Pennsylvania 17406.

8. Republic is a person within the meaning of Section 502(5) of the CWA, 33 U.S.C. § 1362(5).

9. Plaintiff LSRA is a grassroots supporting organization for the Lower Susquehanna Riverkeeper. The Lower Susquehanna Riverkeeper is a specific person who is designated to focus on identifying sources of pollution and enforcing environmental laws. The Riverkeeper actively educates the public on current issues, works with decision-makers to emphasize the economic and social benefits of protecting the Susquehanna River watershed, and, when necessary, enforces laws protecting communities and natural resources of the Susquehanna River Watershed. The current Lower Susquehanna Riverkeeper is Ted Evgeniadis. He is also the LSRA’s current Executive Director and is one of two paid employees of the organization. The

LSRA is an IRS § 501(c)(3) non-profit that operates as a membership-based, mission-driven organization. It is dedicated to improving and protecting the ecological integrity of the Susquehanna River Watershed and the Chesapeake Bay.

10. The LSRA's members and Ted Evgeniadis use, enjoy, and benefit from the water quality in tributaries receiving discharges from Republic's Modern Landfill, including Kreutz Creek and the Lower Susquehanna River. Their recreational interests include wading, fishing, swimming, and generally enjoying the waters of these streams. Their environmental, aesthetic, and recreational interests are impaired as a result of pollution from Republic's operations.

11. The LSRA's members and Ted Evgeniadis would like to recreate in areas downstream from the areas where Republic's Modern Landfill discharges pollutants. Because of pollutants from that landfill, the LSRA's members and Ted Evgeniadis refrain from and/or restrict their uses of Kreutz Creek, the Lower Susquehanna River and associated natural resources. As a result, the environmental, aesthetic, and recreational interests of these members and Ted Evgeniadis are adversely affected by Republic's excessive discharges of pollutants. If Republic's unlawful discharges ceased, the harm to the interests of the LSRA's members and Ted Evgeniadis would be redressed. An injunction would redress their injuries by preventing future violations of the limits in Republic's permits. Civil penalties would also deter Republic from committing future violations.

12. At all relevant times, Plaintiff has been and is a "person" as that term is defined by the CWA, 33 U.S.C. § 1362(5).

STATUTORY AND REGULATORY FRAMEWORK

13. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the "discharge of any pollutant by any person" into waters of the United States except in compliance with the terms of

a permit, such as an NPDES permit issued by EPA or an authorized state pursuant to Section 402 of the CWA, 33 U.S.C. § 1342.

14. Section 402(a) of the CWA, 33 U.S.C. § 1342(a), provides that the permit-issuing authority may issue a NPDES Permit that authorizes the discharge of any pollutant directly into waters of the United States, upon the condition that such discharge will meet all applicable requirements of the CWA and such other conditions as the permitting authority determines necessary to carry out the provisions of the CWA.

15. The Administrator of EPA authorized PADEP, pursuant to Section 402(a)(2) of the CWA, 33 U.S.C. § 1342(a)(2), to issue NPDES permits on June 30, 1978. 52 Fed. Reg. 3701. The applicable Pennsylvania law for issuing NPDES permits is the Clean Streams Law, 35 P.S. § 691.1, *et seq.*

16. Section 505(a) of the CWA, 33 U.S.C. § 1365(a), authorizes any “citizen” to “commence a civil action on his own behalf . . . against any person . . . who is alleged to be in violation of . . . an effluent standard or limitation under this chapter”

17. Section 505(f) of the CWA, 33 U.S.C. § 1365(f), defines an “effluent standard or limitation under this chapter,” for purposes of the citizen suit provision in section 505(a) of the CWA, 33 U.S.C. § 1365(a), to mean, among other things, an unlawful act under Section 301(a) of the CWA, 33 U.S.C. § 1311(a), and “a permit or condition thereof issued” under Section 402 of the CWA, 33 U.S.C. § 1342.

18. In an action brought under Section 505(a) of the CWA, 33 U.S.C. § 1365(a), the district court has jurisdiction to order the defendant to comply with the CWA and to assess civil penalties.

19. Under Section 505(d) of the CWA, 33 U.S.C. § 1365(d), the court “may award

costs of litigation (including reasonable attorney and expert witness fees) to any prevailing or substantially prevailing party, whenever the court determines such an award is appropriate.”

20. Section 309(d) of the CWA, 33 U.S.C. § 1319(d), provides that any person who violates Section 301 of the CWA, 33 U.S.C. § 1311, or violates any permit condition or limitation in a permit issued pursuant to Section 402 of the CWA, 33 U.S.C. § 1342, shall be subject to a civil penalty payable to the United States of up to \$25,000 per day for each violation.

21. Pursuant to the Federal Civil Penalties Adjustment Act of 1990, 28 U.S.C. § 2461, as amended by the Debt Collection Improvement Act of 1996, 31 U.S.C. § 3701, the court may assess a civil penalty of up to \$59,973 for each violation that occurred after November 2, 2015. *See* 40 C.F.R. § 19.4; 87 Fed. Reg. 1676 (Jan. 12, 2022).

FACTS

22. Republic’s NPDES permit number PA0046680, issued on January 23, 2017, pursuant to section 402 of the CWA, authorizes Republic to discharge industrial wastewater containing limited amounts of pollutants from its on-site wastewater treatment plant (“WWTP”) through Outfall 001 into Kreutz Creek. This permit also requires Republic to monitor its discharges and report its monitoring results on monthly discharge monitoring reports.

23. Republic’s discharge monitoring reports show that, since July 2019 and continuing to the present, Republic has repeatedly violated its water quality-based effluent limits for boron and osmotic pressure in its NPDES Permit No. PA0046680 at Outfall 001 at its Modern Landfill on the dates listed in Attachment A to this complaint. Republic’s existing WWTP is not designed to treat for boron or osmotic pressure.

24. Republic has, since at least June 2022, violated Sections 1311(a) and 1365(a)(1)(A) and (f)(1) of the CWA by discharging toxic per- and polyfluoroalkyl substances

(PFAS) from Outfall 001 at the Modern Landfill into Kreutz Creek without an NPDES permit authorizing such discharges.

25. Specifically, on June 22, July 15, August 29, and September 30, 2022, LSRA sampled Republic's discharges at and downstream from Outfall 001 at its Modern Landfill and detected extremely high levels of PFAS. For example, on June 22, 2022, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), which are types of PFAS, were measured at 374.3 parts per trillion (ppt) and 847 ppt, respectively, and 25 other PFAS compounds were also measured at very high levels.

26. In comparison, in June 2022 EPA issued updated Drinking Water Health Advisories which set the public adverse health effect thresholds for PFOS at 0.02 ppt and PFOA at 0.004 ppt. 87 Fed. Reg. 36848 (June 21, 2022).

27. Kreutz Creek is a tributary of the Susquehanna River.

CLAIM FOR RELIEF

28. Plaintiff incorporates by reference all allegations contained in paragraphs 1 through 28 above.

29. Since at least July 2019, Republic has discharged and continues to discharge pollutants, i.e., boron and osmotic pressure, from a point source, i.e., Outfall 001, at its Modern Landfill into Kreutz Creek in excess of the limits allowed by its NPDES Permit No. PA0046680.

30. Since at least June 2022, Republic has discharged and continues to discharge toxic per- and polyfluoroalkyl substances (PFAS) from Outfall 001 at the Modern Landfill into Kreutz Creek without an NPDES permit authorizing such discharges.

31. Kreutz Creek and the Susquehanna River are waters of the United States within the meaning of 33 U.S.C. § 1362(7).

32. Republic will continue to be in violation of its effluent limitations for boron and osmotic pressure, and will continue to have unpermitted discharges of PFAS, unless and until it constructs and operates an upgraded WWTP.

33. Pursuant to Sections 309(d) and 505 of the CWA, 33 U.S.C. §§ 1319(d) and 1365, Republic is liable for civil penalties for each day of each violation of the effluent limitations for boron and osmotic pressure in its permit and each day of each violation of the CWA's prohibition on unpermitted discharges of pollutants.

34. Republic is subject to an injunction under the CWA ordering it to cease its permit violations and unpermitted discharges.

REQUESTS FOR RELIEF

Wherefore, Plaintiff requests that this Court issue an order:

1. Declaring that Republic has violated and is in continuing violation of its NPDES Permit No. PA0046680 and the CWA;
2. Enjoining Republic from operating its facilities in such a manner as will result in further violations of its NPDES permit and the CWA;
3. Ordering Republic to immediately comply with effluent limitations contained in its NPDES permit;
4. Ordering Republic to pay appropriate civil penalties for each violation of its NPDES permit and the CWA;
5. Awarding Plaintiff its attorney fees, expert witness fees, and all other reasonable expenses incurred in pursuit of this action; and
6. Granting other such relief as this Court deems just and proper.

Respectfully submitted,

/s/ Stephen G. Harvey

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Dated: January 11, 2023

Attachment A**List of Violations**

Month	Outlet	Parameter	Limit	Units	Type	DMR value	% Over
2/29/2020	1	Boron, total	23	lb/d	MAX	26.9	17
2/29/2020	1	Boron, total	5.52	mg/L	MAX	18.6	237
2/29/2020	1	Boron, total	17.2	lb/d	AVG	23.4	36
2/29/2020	1	Boron, total	4.12	mg/L	AVG	15.7	281
3/31/2020	1	Boron, total	4.12	mg/L	AVG	13.9	237
3/31/2020	1	Boron, total	17.2	lb/d	AVG	19.0	10
3/31/2020	1	Boron, total	23	lb/d	MAX	23.1	0
3/31/2020	1	Boron, total	5.52	mg/L	MAX	15.0	172
4/30/2020	1	Boron, total	23	lb/d	MAX	36.0	57
4/30/2020	1	Boron, total	5.52	mg/L	MAX	22.0	299
4/30/2020	1	Boron, total	4.12	mg/L	AVG	15.4	274
4/30/2020	1	Boron, total	17.2	lb/d	AVG	20.8	21
5/31/2020	1	Boron, total	17.2	lb/d	AVG	20.2	17
5/31/2020	1	Boron, total	5.52	mg/L	MAX	21.5	289
5/31/2020	1	Boron, total	4.12	mg/L	AVG	18.9	358
5/31/2020	1	Boron, total	23	lb/d	MAX	29.8	30
6/30/2020	1	Boron, total	5.52	mg/L	MAX	17.5	217
6/30/2020	1	Boron, total	23	lb/d	MAX	23.9	4
6/30/2020	1	Boron, total	4.12	mg/L	AVG	7.3	76
7/31/2020	1	Boron, total	5.52	mg/L	MAX	22.0	299
7/31/2020	1	Boron, total	4.12	mg/L	AVG	15.0	265
7/31/2020	1	Boron, total	17.2	lb/d	AVG	18.0	5
7/31/2020	1	Boron, total	23	lb/d	MAX	35.8	56
8/31/2020	1	Boron, total	5.52	mg/L	MAX	20.0	262
8/31/2020	1	Boron, total	4.12	mg/L	AVG	14.5	252
9/30/2020	1	Boron, total	5.52	mg/L	MAX	25.0	353
9/30/2020	1	Boron, total	4.12	mg/L	AVG	16.0	288
9/30/2020	1	Boron, total	17.2	lb/d	AVG	20.4	19
9/30/2020	1	Boron, total	23	lb/d	MAX	32.7	42
10/31/2020	1	Boron, total	23	lb/d	MAX	35.1	53
10/31/2020	1	Boron, total	5.52	mg/L	MAX	19.0	244
10/31/2020	1	Boron, total	4.12	mg/L	AVG	15.2	269
10/31/2020	1	Boron, total	17.2	lb/d	AVG	21.3	24
11/30/2020	1	Boron, total	17.2	lb/d	AVG	21.2	23
11/30/2020	1	Boron, total	4.12	mg/L	AVG	13.9	236
11/30/2020	1	Boron, total	23	lb/d	MAX	35.9	56
11/30/2020	1	Boron, total	5.52	mg/L	MAX	21.0	280

12/31/2020	1	Boron, total	23	lb/d	MAX	31.8	38
12/31/2020	1	Boron, total	4.12	mg/L	AVG	14.8	259
12/31/2020	1	Boron, total	5.52	mg/L	MAX	18.0	226
12/31/2020	1	Boron, total	17.2	lb/d	AVG	22.6	31
1/31/2021	1	Boron, total	5.52	mg/L	MAX	17.0	208
1/31/2021	1	Boron, total	17.2	lb/d	AVG	25.2	47
1/31/2021	1	Boron, total	4.12	mg/L	AVG	16.5	300
1/31/2021	1	Boron, total	23	lb/d	MAX	27.5	20
2/28/2021	1	Boron, total	17.2	lb/d	AVG	20.4	19
2/28/2021	1	Boron, total	23	lb/d	MAX	32.9	43
2/28/2021	1	Boron, total	5.52	mg/L	MAX	20.0	262
2/28/2021	1	Boron, total	4.12	mg/L	AVG	17.0	313
3/31/2021	1	Boron, total	23	lb/d	MAX	37.6	63
3/31/2021	1	Boron, total	5.52	mg/L	MAX	23.0	317
3/31/2021	1	Boron, total	4.12	mg/L	AVG	15.7	281
3/31/2021	1	Boron, total	17.2	lb/d	AVG	22.5	31
4/30/2021	1	Boron, total	23	lb/d	MAX	26.3	14
4/30/2021	1	Boron, total	5.52	mg/L	MAX	24.0	335
4/30/2021	1	Boron, total	4.12	mg/L	AVG	20.2	390
5/31/2021	1	Boron, total	5.52	mg/L	MAX	20.0	262
5/31/2021	1	Boron, total	17.2	lb/d	AVG	19.9	16
5/31/2021	1	Boron, total	4.12	mg/L	AVG	18.5	349
6/30/2021	1	Boron, total	4.12	mg/L	AVG	16.0	288
6/30/2021	1	Boron, total	17.2	lb/d	AVG	17.7	3
6/30/2021	1	Boron, total	5.52	mg/L	MAX	16.0	190
7/31/2021	1	Boron, total	5.52	mg/L	MAX	20.0	262
7/31/2021	1	Boron, total	4.12	mg/L	AVG	13.6	229
8/31/2021	1	Boron, total	4.12	mg/L	AVG	13.5	228
8/31/2021	1	Boron, total	5.52	mg/L	MAX	17.0	208
9/30/2021	1	Boron, total	5.52	mg/L	MAX	20.0	262
9/30/2021	1	Boron, total	4.12	mg/L	AVG	17.8	332
10/31/2021	1	Boron, total	23	lb/d	MAX	23.4	2
10/31/2021	1	Boron, total	5.52	mg/L	MAX	22.0	299
10/31/2021	1	Boron, total	17.2	lb/d	AVG	20.9	22
10/31/2021	1	Boron, total	4.12	mg/L	AVG	20.0	385
11/30/2021	1	Boron, total	17.2	lb/d	AVG	22.2	29
11/30/2021	1	Boron, total	4.12	mg/L	AVG	23.0	458
11/30/2021	1	Boron, total	5.52	mg/L	MAX	27.0	389
11/30/2021	1	Boron, total	23	lb/d	MAX	27.2	18
12/31/2021	1	Boron, total	4.12	mg/L	AVG	24.2	487
12/31/2021	1	Boron, total	17.2	lb/d	AVG	30.3	76
12/31/2021	1	Boron, total	5.52	mg/L	MAX	25.0	353
12/31/2021	1	Boron, total	23	lb/d	MAX	38.3	67

1/31/2022	1	Boron, total	23	lb/d	MAX	37.8	64
1/31/2022	1	Boron, total	4.12	mg/L	AVG	23.1	459
1/31/2022	1	Boron, total	17.2	lb/d	AVG	32.0	86
1/31/2022	1	Boron, total	5.52	mg/L	MAX	25.0	353
2/28/2022	1	Boron, total	5.52	mg/L	MAX	21.0	280
2/28/2022	1	Boron, total	17.2	lb/d	AVG	24.7	44
2/28/2022	1	Boron, total	4.12	mg/L	AVG	19.3	367
2/28/2022	1	Boron, total	23	lb/d	MAX	38.1	66
3/31/2022	1	Boron, total	17.2	lb/d	AVG	29.1	69
3/31/2022	1	Boron, total	4.12	mg/L	AVG	20.4	395
3/31/2022	1	Boron, total	23	lb/d	MAX	32.7	42
3/31/2022	1	Boron, total	5.52	mg/L	MAX	22.0	299
4/30/2022	1	Boron, total	5.52	mg/L	MAX	23.0	317
4/30/2022	1	Boron, total	23	lb/d	MAX	37.7	64
4/30/2022	1	Boron, total	4.12	mg/L	AVG	22.0	434
4/30/2022	1	Boron, total	17.2	lb/d	AVG	34.2	99
5/31/2022	1	Boron, total	4.12	mg/L	AVG	22.5	446
5/31/2022	1	Boron, total	17.2	lb/d	AVG	31.8	85
5/31/2022	1	Boron, total	5.52	mg/L	MAX	24.0	335
5/31/2022	1	Boron, total	23	lb/d	MAX	38.7	68
6/30/2022	1	Boron, total	5.52	mg/L	MAX	29.0	425
6/30/2022	1	Boron, total	23	lb/d	MAX	48.2	110
6/30/2022	1	Boron, total	4.12	mg/L	AVG	23.4	468
6/30/2022	1	Boron, total	17.2	lb/d	AVG	31.8	85
7/31/2022	1	Boron, total	4.12	mg/L	AVG	19.0	361
7/31/2022	1	Boron, total	17.2	lb/d	AVG	21.8	27
7/31/2022	1	Boron, total	5.52	mg/L	MAX	21.0	280
7/31/2022	1	Boron, total	23	lb/d	MAX	24.4	6
8/31/2022	1	Boron, total	4.12	mg/L	AVG	17.0	313
8/31/2022	1	Boron, total	17.2	lb/d	AVG	21.1	23
8/31/2022	1	Boron, total	5.52	mg/L	MAX	18.0	226
9/30/2022	1	Boron, total	5.52	mg/L	MAX	25.0	353
9/30/2022	1	Boron, total	23	lb/d	MAX	34.8	51
9/30/2022	1	Boron, total	4.12	mg/L	AVG	22.2	439
9/30/2022	1	Boron, total	17.2	lb/d	AVG	25.2	47
10/31/2022	1	Boron, total	5.52	mg/L	MAX	24.0	335
10/31/2022	1	Boron, total	23	lb/d	MAX	31.2	36
10/31/2022	1	Boron, total	4.12	mg/L	AVG	18.9	359
10/31/2022	1	Boron, total	17.2	lb/d	AVG	23.1	34
11/30/2022	1	Boron, total	5.52	mg/L	MAX	15.0	172
11/30/2022	1	Boron, total	4.12	mg/L	AVG	11.6	182
7/31/2019	1	Osmotic pressure, total	129	mOsm/kg	AVG	129.5	0
7/31/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	249	36

8/31/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	237	30
9/30/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	255	39
9/30/2019	1	Osmotic pressure, total	129	mOsm/kg	AVG	191	48
10/31/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	332	81
10/31/2019	1	Osmotic pressure, total	129	mOsm/kg	AVG	307	138
11/30/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	290	58
11/30/2019	1	Osmotic pressure, total	129	mOsm/kg	AVG	151	17
12/31/2019	1	Osmotic pressure, total	129	mOsm/kg	AVG	136.5	6
12/31/2019	1	Osmotic pressure, total	183	mOsm/kg	MAX	262	43
1/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	245.5	90
1/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	282	54
2/29/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	161	25
2/29/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	308	68
3/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	368	101
3/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	289	124
4/30/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	246	91
4/30/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	262	43
5/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	241	32
5/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	230	78
6/30/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	301	133
6/30/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	313	71
7/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	286	56
7/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	266	106
8/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	185	43
8/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	241	32
10/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	190	47
10/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	296	62
11/30/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	303	66
11/30/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	179	39
12/31/2020	1	Osmotic pressure, total	129	mOsm/kg	AVG	138	7
12/31/2020	1	Osmotic pressure, total	183	mOsm/kg	MAX	228	25
1/31/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	263	44
1/31/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	225	74
2/28/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	231	79
2/28/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	268	46
4/30/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	174	35
4/30/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	274	50
5/31/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	209	14
5/31/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	189	47
6/30/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	325	152
6/30/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	331	81
8/31/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	180	40
8/31/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	297	62

9/30/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	313	71
9/30/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	303	135
10/31/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	270	109
10/31/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	347	90
11/30/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	346	89
11/30/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	314	143
12/31/2021	1	Osmotic pressure, total	129	mOsm/kg	AVG	342	165
12/31/2021	1	Osmotic pressure, total	183	mOsm/kg	MAX	352	92
1/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	322	76
1/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	263	104
2/28/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	315	144
2/28/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	339	85
3/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	248	36
3/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	144	12
4/30/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	172	33
4/30/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	234	28
5/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	350	91
5/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	318	147
6/30/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	317	73
6/30/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	285	121
7/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	281	54
7/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	180	40
8/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	291	59
8/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	291	126
9/30/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	282	54
9/30/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	190	47
10/31/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	310	69
10/31/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	286	122
11/30/2022	1	Osmotic pressure, total	183	mOsm/kg	MAX	262	43
11/30/2022	1	Osmotic pressure, total	129	mOsm/kg	AVG	137	6